10

WHAT IS CLAIMED AS NEW AND IS DESIRED TO BE SECURED BY LETTERS PATENT OF THE UNITED STATES IS:

 $S_{\mathbf{k}}^{\mathbf{p}}$   $\mathbf{k}$ . An image forming apparatus, comprising:

- a writing device configured to write and form an image on a surface of an image forming apparatus;
  - a developing device configured to develop the image formed on the surface of the image bearing member; and

an upper duct provided on and a lower duct provided beneath a housing of the writing device to form an outside-air flowing path.

- 2. The image forming apparatus according to claim 1, wherein an opening is provided to the lower duct such that the opening is covered by the housing.
- 3. The image forming apparatus according to claim 1, wherein an open upper side of the housing is covered by a scanner frame of an original document reading device, and wherein the upper duct is provided in the scanner frame.
- 4. The image forming apparatus according to claim 3, wherein an opening is provided to the upper duct and is covered by the scanner frame.
- 5. The image forming apparatus according to claim 1, wherein outside-air intaken by a single air intake fan flows through each of the upper duct and the lower duct.
- 6. The image forming apparatus according to claim 1, wherein a fan is provided to an outside-air intake inlet and an air discharge outlet at least one of the upper duct and the lower duct.

20

25

· 5

The image forming apparatus according to claim 1, wherein scanning optical components formed of a plastic are used in the writing device.

- 8. The image forming apparatus according to claim 1, wherein an outside-air that flowed through at least one of the upper duct and the lower duct is used to cool components other than the writing device.
  - 9. The image forming apparatus according to claim 1, wherein an outside-air that flowed through one of or both of the upper and lower ducts is used to remove ozone produced in the image forming apparatus.
    - 10. An image forming apparatus, comprising:

means for writing and forming an image on a surface of an image forming apparatus;

means for developing the image formed on the surface of the image bearing member; and

an upper duct provided above and a lower duct provided beneath a housing of the writing means to form an outside-air flowing path.

- 11. The image forming apparatus according to claim 10, wherein an opening is provided to the lower duct such that the opening is covered by the housing.
- 12. The image forming apparatus according to claim 10, wherein an open upper side of the housing is covered by a scanner frame of an original document reading device, and wherein the upper duct is provided in the scanner frame.

5

- wherein an opening is provided to the upper duct, and the opening is covered by the scanner frame.
  - 14. The image forming apparatus according to claim 10, wherein outside-air intaken by a single air intake fan flows through each of the upper duct and the lower duct.
- 15. The image forming apparatus according to claim 10, wherein a fan is provided to an outside-air intake inlet and a air discharge outlet to at least one of the upper duct and the lower duct.
  - 16. The image forming apparatus according to claim 10, wherein scanning optical components formed of a plastic are used in the writing means.
  - 17. The image forming apparatus according to claim 10, wherein outside-air that flows through at least one of the upper duct and lower duct is used to cool components other than the writing means.
- 18. The image forming apparatus according to claim 10, wherein outside-air that flows through at least one of the upper duct and the lower ducts is used to remove ozone produced in the image forming apparatus.